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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,272	03/01/2002	John P. Callison	MAG-01C	7883

7590 02/13/2006
Montgomery W. Smith
31 McConkey Drive
Washington Crossing, PA 18977

EXAMINER

YENKE, BRIAN P

ART UNIT PAPER NUMBER

2614

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,272

Applicant(s)

CALLISON ET AL.

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment (22 Dec 05).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 72,74,75,77,80,83,85,86,88,90,92,95-97 and 154-228 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 22 Dec 05 have been fully considered but they are not persuasive.

Applicant's Arguments

a) Applicant states that Hargis does not disclose any other orientation or pattern of the spots other than the vertical column shown in the figures.

b) Applicant traverses the examiner's OFFICIAL NOTICE regarding the use of more than two light beams.

Examiner's Response

a) The examiner disagrees. Although Hargis discloses that the pixel modulated are in a vertical row, those pixels are scanned in a desired arrangement (sawtooth, triangular etc...) as shown in the figures. The line periods are representative of dots/spots being illuminated. It is also noted that the applicant's own specification discloses (para 23), that it has been known to scan diagonally and spiral form from the center of the frame or in from the outer edge. Thus, not only does Hargis disclose different scanning methods (if the applicant's disagree with this then why are there different scan patterns illustrated in Hargis regardless if they originated from a vertical modulated column of pixels), the applicant's also admit such as being conventional (i.e. prior art).

b) Initially the applicant states that Conemac discloses that more than two light beams may be projected. Although, the applicant as admitted his own evidence regarding the traversal, the examiner nonetheless incorporates additional evidence, Hall US 6,639,631 which disclose that a single white light source may be used (Fig 2, element 100), or alternatively 3 separate colored laser diodes (150, one for red, one for green and one for blue as shown (Fig 3).

In the event the applicant disagrees with the rejection or statements above, the examiner would like the applicant to clarify which limitations of the claims are not obvious over the references in addition to the applicant's own admission that slant/diagonal scanning is conventional practice.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 72, 74, 75,77,80, 83, 85, 86,88,90, 92, 95-97 and 154-228 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conemac, US 6,175,440 in view of Hargis et al., US 6,154,259.

In considering claims 72, 74, 75, 77, 80, 83,85, 86,88, 90,92, 95-97, 154-156, 159, 161-164, 165-169, 172, 177-193, 195-197, 199, 201-216, 221, 225-228

a) *the claimed light beams is met* where Conemac discloses light sources 200 and 300 which each contain plural columns and rows of diodes (Fig 7)

b) the claimed a scanner... is met by scanner 32 (Fig 2) which deflects the plural light beams simultaneously in a horizontal direction and second scanning element 212 deflects the lines in a vertical direction upon completion of each horizontal scan (Fig 4). Facets of scanner 32 are tilted at different angles to provide plural swaths in different areas of the display screen (col 3, line 14-32).

However, Conemac does not explicitly recite the use of more than 2 light beams/sources, nor the slant (i.e. not adjacent) pattern.

The use of one or more (meeting the claimed 2 or more, 3 or 4 or more light beams) is a conventional feature in projection systems, based upon the need of the system/designer, where a system can comprise one light sources that is separated into the respective color components or multiple beams/sources could be used thereby negating the separation state for each color, thus the examiner takes "OFFICIAL NOTICE" regarding such.

Conemac also does not explicitly recite the conventional feature of slant/diagonal scanning the projection, where Conemac discloses horizontal line by line scanning.

The option/choice of a system in scanning in a slant, rectangular, triangle are conventional features available in the projection art and thus the examiner relies upon Hargis which discloses the various output options (Fig 16-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Conemac with discloses a laser beam display system by allow the designer/system utilize more laser beams if desired and by allowing the system to scan in conventional directions (i.e. slant) as disclosed by Hargis, in order to provide a laser projection

system which offers all the conventional features which are readily available and thus gives the user freedom in display options.

In considering claim 158, 160, 170, 171, 174-176, 194, 198, 200, 217-220, 222-224, See Fig 7 for fiber optic head/coupler.

Conclusion

3. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7353.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571)273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is
(703)305-HELP.

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(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and

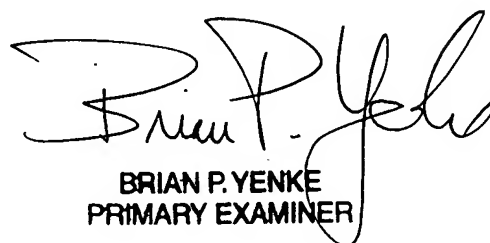
applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS).

PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y.

06 February 2006



BRIAN P. YENKE
PRIMARY EXAMINER